

In the Specification

Please delete the *paragraph*, pg. 6, lines 4-21 of applicants' specification ***and replace with*** the following amended paragraph:

Calibration of each device within the system engaged in producing the display is critical to detection and a resulting corrective adjustment. Initially, changes due to unexpected radiometric artifacts on the display surface are detected. Predicted imagery is constructed for a specific camera position and color transfer function and compared to captured images. Predicted images 23, 24 (FIG. 2) are constructed using the identified position of the camera with respect to each projector as well as a unique color (transfer function) calibration phase applied in a straightforward manner. The features of system 20 depicted in FIG. 2 are herein referenced in connection with a multi-projector system of the invention, such as that in FIG. 1. Given a camera (21 and 22) and projector pair, geometric calibration comprises the transformation from pixels in the camera plane (shown within box defined at 21 and box defined at 22) to their corresponding positions in the projectors' frame buffers (depicted within dashed box 30 are three framebuffers identified as 1 - 3). ~~Given this transform, regions in shadow, observed in a camera, can then be correctly adjusted in the projected imagery.~~ Once the homography between each projector and the camera has been recovered, a composition homography can be constructed to relate projector pixels to one another. Each projector projects a grid pattern that is parallel the axes of its own framebuffer. Given the known calibration, a coherent grid can be drawn by all projectors in the respective reference frame of a single projector. Thus, any image (coherent) can be rendered.

Please delete the *paragraph* beginning on pg. 14, line 33 until pg. 15, line 11 of applicants' specification **and replace with** the following amended paragraph:

For example, the transfer function, $f_c(x)$, *Eqn. 0*, computes the expected value of channel c in the camera image for a projected value of x . The following expression labeled *Eqn. 0* is of the form set forth hereafter and numbered *Eqn. 10* for modeling color transfer curves.

$$f_c(x) = \frac{a}{1 + e^{-a(x-b)}} + k \quad (0)$$

Typically in data projector systems for human viewing, three color channels, {R, G, B}, corresponding to Red, Green, and Blue color components, respectively, are used. Thus, if the projector projects a pixel with a red-channel value of x , the camera sees that pixel as having a red-channel value of $f_r(x)$. Preferably, a separate color transfer function is computed for each channel independently, thus in addition to the red-channel value of $f_r(x)$ for the green and blue channels, respectively, a value for $f_g(x)$ and $f_b(x)$, is also computed. The parameters a , α , b and k used in the various channels {r, g, b} for *Eqn. 0* are independent and may be different for each function. These four parameters are preferably discovered/estimated by way of a calibration phase where values of particular known intensities are projected by the projector and observed by the camera.